BRIEF

To:

The Commission on
Post-Secondary Education
in Ontario

From:

The Committee on the Economics
of Higher Education
Department of Economics
Carleton University
Ottawa

Members of the Committee:

Professor E.G. West (Chairman)
Professor C. Maule
Professor W. Hettich
Sheila Isaac (Secretary)
John Horne

April 1971

At the outset we must express appreciation of the vigorous and forthright manner in which the Commission has presented its 'Statement of Issues'. The 'Statement' gives the widest provocation and therefore liberal scope for debate. No doubt many temptations exist for the more fastidious to seize triumphantly upon apparent verbal inconsistencies here and there in the Commission's work. We try to avoid pedantic replies and attempt constructive discussion in the same spirit that it seems to be invited. To anticipate our own conclusion a little we shall eventually select and develop what we believe to be the Commission's strongest pieces of argument. The preliminary criticism or rejection of other strands of its discussion should be seen in this perspective.

The economic crisis in education is not peculiar to Canada. Throughout the world the trend is towards increasing 'taxpayer resistance' to further expansion. This applies to both lower and higher education. In 'lower education' budgets are now falling far short of costs in American (as in Canadian) cities. Unemployment among teachers in the United States is higher today than it has ever been since the Great Depression of the thirties. The quality of free schools is falling; overcrowding in classrooms is on the increase. In higher education the problem of taxpayer resistance is obviously connected with the 'relentless' growth of student population (but we shall demonstrate additional and deeper reasons). In the last hundred years the percentage of 18-24 year olds enrolled for full-time degree-credit courses in the United States has doubled every 15 years. It has been estimated that two-thirds of this age group will be enrolled in full-time education in thirty years' time - that is about 15 million students! The cost to the American public on present trends will be at least 3 per cent of the gross national product.

Since higher education is predominantly a labour using service, productivity improvements are usually much less than in other (e.g. industrial) sectors, as the Commission rightly argues on page 9. When superior productivity increases occur elsewhere, the attempts to keep educational labour at the same relative level of standards of living inevitably increases the cost of education. Indeed this valid reason for continued cost increases in the future is just as important as the growth of population and participation rates. It has so far been largely concealed from public scrutiny however since the taxpayer has not been able to distinguish it from the ordinary costs of expansion. As the rate of expansion slows (saturation point nears) it will be less easy to conceal. Nevertheless it is extremely unlikely that the average taxpayer will fully understand such a sophisticated argument. On the contrary, it is only too likely that he will be more inclined to regard increased tax bills for education as a symptom of increased institutional extravagance. This point explains much of the political dilemma which will face

future governments in their attempts to keep pace with educational demands. The same dilemma points to the need to seek alternative or auxiliary forms of financing post-secondary education in the future. Some such alternatives, which are also justifiable on grounds other than political expediency, will be discussed later. Meanwhile, whatever the various merits of each separate scheme it is clear that Ontario, and Canada as a whole, needs to be so aware of world trends in education that as they increasingly assert themselves domestically, the authorities are waiting fully equipped with carefully worked out plans and adjustments.

The argument of the present brief rests upon three assumptions. First, the long term continuation of 'taxpayer resistance' to education. Second, the continued need to screen students for entry into specific higher education courses; i.e. participation rates of less than 100 per cent. Third, the effect of much higher education (but not all) will continue to be that of raising the income-earning of the recipient, that is of creating 'human capital'. Objection to any of these assumptions will obviously make the rest of our reasoning less acceptable. It seems however that the Commission's 'Statement of Issues' contains clear recognition of all three. Further comments on each may be helpful.

1) Taxpayer Resistance

Most of the protest by associations of college administrators and student bodies seem in essence an argument not between them and particular governments but between them and taxpayers. Experience in the Western world shows that although presiding governments receive the brunt of the criticism it is not because they are connected with any particular political ideology. Governments of all kinds are caught everywhere in the crossfire between the vociferous demands of the educational interests and the 'stubborn' reluctance of taxpayers as expressed in their political voting. We do not wish to preclude that type of argument whereby academics, students and others continue to try to persuade taxpayers of possible injuries the public itself suffers from tighter attitudes to fiscal support. Our reasoning meanwhile assumes as a datum the continuance of these tighter attitudes.

2) Student Selection

The Commission argues (page 7) that universality of accessibility does not mean that everybody will or must continue after graduation from high school but only those 'who are able, *can profit from*, and wish to have post-secondary education' (our italics). In practice, this means that higher education unlike lower (schooling) is unlikely ever to be universal in the sense of 100 per cent participation of the relevant age group.

future governments is merely intended to acquaint them with educational demands. The most difficult points of the need to seek alternative or auxiliary forms of financing for secondary education in the future. From such alternatives, which are, in our conception, the grounds other than government expenditures, will be discussed later, especially whatever the various merits of each separate scheme. It is clear that priority must remain on education, since it is an aspect of world growth in general as long as every individual, without themselves, economically, the authorities are selling their employees with carefully worked out plans and adjustments.

The arguments of the present brief rests upon three assumptions. First, the long term maintenance of "accepted continuance" in education. Second, the continued need to expand education for still more specific higher education increased the participation rates of 1966 which will per unit. Third, the effects of such higher education, that will be continue to be able at present for increased growing of the population, that is of investing "human capital", particularly in highly skilled manpower and will obviously be the best way of increasing that advantage. It seems however that the Commission in "Statement of Intent" requires close examination of all these. Further comments on each may be helpful.

1. Economic Realities

Much of the present is understanding of national considerations and economic matters seem to revolve in uncertain and between them and particular governments and between them and citizens. Experience in the Western world shows that the major contributing governments receive the brunt of the criticism if they do not find that their policy with any particular political ideology. Governments and all those who remain interested in the connection between the political dominance of the educational interests and the "student" acceptance of facilities to experience in every political context. We do not want to reinforce that type of thinking whereby education, economics and people continue to try to persuade taxpayers to question investing the public. Public welfare from higher and different education support. This particular economic decision is a factor the investment of these higher estimates.

2. Student Enrolment

The Commission argues (Page 7) that universality of accessibility does not mean that secondary will, or even continues after graduation from high school, but only those with the ability, and do wish to apply for their post-secondary education. Very likely by practice, this means that higher education entries (perhaps largely those of university) is the lowest of the early participation of the secondary age group.

3) Human Capital

From accumulated evidence there can be no doubt that annual income typically rises with every additional year of education. Although as the Commission points out that there are disputes about how high the returns to investment in education are, most estimates of private returns are nevertheless effectively positive. The economic principles of investment in educational capital are basically no different from those of investment in machines. There are, however, two institutional differences. First, there is the fact that the educational 'machine' must always belong to the person to which it attaches and not to outside investors. Second, there are certain financial barriers to investing in human capital, notably the refusal of the law to allow some individuals to have equity stakes in others.

Basic Principles

Having stated our three factual assumptions we proceed to the fundamental principles of government participation in higher education. These principles have aspects of both efficiency and equity. There are two major economic principles: first the need to overcome human capital market 'imperfections'; second the need for governments to capture for the public those non-private or indirect benefits (called by economists 'externalities') which spring from education and which are broadly diffused throughout society.

Capital Market Imperfections

If a private loan is made to finance the education of an individual who does not possess any tangible assets, the lender possesses much less security than when he invests in a corporation that uses the money to buy a machine. If the corporation defaults on the loan the lender can claim the machine; there is no equivalent counterpart to this security in the case of the educational investments ('machines'). There is therefore a case for government intervention to offset this kind of obstacle. Notice however that the form of intervention indicated is for government directly to act as guarantor for educational loans for those unable to obtain them on the strength of normal collateral. This particular argument in other words does not lead to a case for full government provision of 'free' education to all. Notice too that 'equity' is pursued at the same time as 'efficiency'. This occurs insofar as those benefiting from such improved capital markets are those without sufficient conventional collateral - the low income groups. Observe finally however that the most efficient way of producing the education investment ('machine') is to concentrate upon those who need least teaching and other educational resources. This is the basis for the Commission's limitation of access to those most suited and who can best 'profit from' education. These individuals may for instance possess higher than average natural talent. What is rarely realized

is that the equity problem does not end with the attainment of fairer representation of gifted working class students; there remains the issue of fairness between 'non-gifted', working class taxpayers, and 'gifted' working class students. This will always exist so our second assumption holds - that is so long as participation rates are less than 100 per cent.

Non-Private or Indirect Benefits (Externalities)

Even if there was a perfect capital market for education there would still be a presumption in favour of government intervention if there were significant benefits from higher education that were not appropriated by the individual beneficiary but 'spilled over' to the benefit of society as a whole. The Commission (page 5) refers to one seemingly obvious benefit to the public - the higher income tax returns that stem from more educated persons - which is a benefit that students are fond of claiming. It is however illusory. If the income tax on graduates is paying for the educational grants awarded to them earlier in their lifetimes by other taxpayers, then the later tax payment just offsets the earlier; the income tax paid by the graduate does not amount to an increase in total benefits. Income tax usually finances a variety of public projects - roads, health, defense etc. If the tax paid by a graduate is to be regarded as a repayment of his educational grants then compared with the non-graduate with a similar income, he is not paying his proper share of roads, health, defense, etc.

Serious misunderstanding also features other so-called social (non-private or external) benefits. Consider for instance the Commission's argument (page 7) that benefits accrue to the public "in the way the members of the profession fulfill social needs through the provision of medical, legal, technical, and educational services." Despite the Commission's implied assumption, there is in fact no necessary case for full public subsidy here given a reasonably efficient labour market. To see this it is only necessary to ask if a case could be made for doctors, could it not also be made for all other occupations? Should there be full subsidies for on-the-job training of all kinds including grocers, hairdressers and store assistants? Their services all also fulfill social needs if there is a demand for them. What needs to be made clear (at the risk of causing tedium to those who dislike economics) is the distinction between sufficient and 'insufficient' free market demand for different personnel. The fact that one occupation would receive less than its value to society in a free market does not necessarily call for government intervention. And if it does, the intervention does not have to be of the kind that gives education subsidies.

Optimum resource allocation in a free market demands that each productive agent be paid less than the full value of what it adds to the national product. Each agent might try to claim the whole of the output produced in co-operation with other agents on the grounds that

if they withdrew their services the other groups could not produce any of it. This is not the way a labour market works however. Each member of a group is paid according to his marginal value - the difference made to the total earnings of the group by an additional member. As the members in the group grow this marginal value eventually diminishes. Where there is positive economic growth their incomes will decline or grow less than they otherwise would. The reduction in the pay of all the intra-marginal members of any group caused by a growth in recruitment certainly constitutes the real gain to the rest of society. There is no discrepancy here however between the market earnings of the particular group and the marginal value to society of any member of the group. In other words there is no justification for raising the pay of the group members on account of the transfer to the rest of society. If the salary reflects the marginal value of the professional then he will fulfill social needs without the help of government intervention of any kind except that of facilitating a loan scheme to finance his training.

Such a mechanism of course only works best if there are no artificial barriers to newcomers. If there are such barriers the appropriate government policy is to remove them. The provision of educational subsidies only compounds the error since it amounts to transfers to those who already enjoy monopoly rents. We endorse very strongly the Commission's views on the misuse of certification in its connection with entry restrictions. We suggest that those professions where certification is not unambiguously compatible with competitive entry should be the first candidates for switches in the balance away from grants and towards more self-finance through loans.

Consider next the question of severe fluctuations of 'cobweb cycles' in markets for highly qualified manpower. This extra imperfection still does not constitute a sufficient condition for full and permanent public education subsidies. To many economists it would seem at most to indicate the need for 'active' manpower policies. Assuming these policies can be effective, that is that they do not aggravate the problem (as happens frequently), imperfections in adjustment processes can be overcome to a considerable extent by simply improving labour information channels. Beyond this government could try to counter the free market instability by operating directly (e.g. with subsidies or taxes) on the salaries of new entrants. Operating via educational subsidies, in contrast, is more indirect and less efficient.

None of these observations denies that genuine external benefits exist. If these benefits are very significant then the marginal social product of educated labour exceeds its marginal private product. Unfortunately there is virtually no firm evidence on this score available yet in any country. In the meantime this is a kind of 'no-man's-land' to which eventually most economists who attempt to evaluate social and private returns uneasily find themselves.

The lower the discovered private and social rates of return on education the bigger the need for evidence about external benefits if we are to continue justifying continued public expenditure at current rates. The most recent study of the social return to Ontario graduate education[1] found that in only one case did the social rate of return exceed five per cent. This was for the Master of Business Administration (M.B.A.). The rate was based on the differential future earnings between those with an M.B.A. and those with only a Bachelor Degree in Science. The same study found large negative net social returns in some Ph.D. programs (especially in engineering). The study points out that in order to "justify" such low returns in graduate study one has once more to resort to residual arguments about external benefits (spillovers). These external benefits consist, in the view of these authors, of such general and hoped for contributions as inventions, discoveries, more informed voting and efficient administration. But these qualities would have to attach with considerable differential strength to persons with engineering post-graduate degrees than with possessors of the M.B.A. in order to make up the very significant difference in monetary rates of return referred to. Obviously one must remain extremely sceptical until much more evidence about external benefits is produced.

To recapitulate: The principles of intervention rest upon (a) the need to remove capital (loan) market imperfections, (b) the need for government appropriation of the indirect (external) benefits of education, the extent of which are not so obvious as is popularly believed. In real life these principles are reflected in the facts of existing loan systems and public grants. In view of the expected continuation if not hardening of taxpayer resistance, one must predict a switch in the balance towards loans and away from grants. Before we can proceed however it is necessary to discuss what the Commission believes to be disadvantages of loans.

Loans: The Alleged Drawbacks

The first alleged drawback (p. 15) is that loan schemes do not necessarily increase the opportunity of low income groups. This seems to conflict with our argument above concerning government intervention to remove capital market imperfections. Starting from an absence of any intervention such removal (i.e. the facilitating of loan markets) would, we argued, disproportionately benefit the low income groups since they were less likely to have tangible forms of collateral. We are now discussing however a case where we start with intervention in the form of grants and we are considering substituting some of them with loans. This context conceals the equity consideration

1. Dodge and Stager, Returns to Graduate Study in Science, Engineering and Business, Institute for Quantitative Analysis of Social and Economic Policy, Working Paper No. 7014, University of Toronto, October 1970, p. 15.

between 'working class' students and working class non-student taxpayers. Nevertheless even with respect to equity between different groups within the student class there are more aspects to the problem than seem to be appreciated.

It is necessary first to recognize the misallocation that occurs under the present grants system. Some candidates from all classes are at present in higher education who would not have applied for it if they were expected to pay full costs from their own or from borrowed funds. Even if they could borrow funds from the capital market at the market rate they may see no net advantage, on their own evaluation of investing resources in education rather than in something else. If on the other hand they expect a substantial subsidy their decision is more favourably disposed towards education despite their loss of foregone earnings. Such students take up places that other more motivated and perhaps 'working class' individuals might well fill under alternative methods of financing. Suppose for the sake of argument that all 'middle class' students were invited to pay the full costs by means of a loan scheme. This would release considerable funds which could then be spent if required on subsidies specially designed to recruit the better motivated individuals referred to. One should also consider non-pecuniary (consumption) benefits from education that the latter may appreciate more. Even though to them pecuniary rates of return were less favourable, a loan system would enable the non-pecuniary benefits to be secured by those most dedicated to education; and no doubt many would come from lower income groups. This is no mere academic point. A recent careful survey disclosed that about one in six students enrolled in the United States do not wish to be students. This is over a million students. Many of them have been drafted into college by parental pressure or because a degree has become a licence to hunt for a job. We mention these points in reply to the Commission's view (p. 15) that a loan scheme would tie attendance strictly to financial considerations. Clearly this criticism applies at least as strongly to the present types of grant systems.

It should be recognized that the loan scheme to which we refer is one which is much wider in scope than anything so far adopted in Canada. It would allow students to draw more than sufficient to cover their tuition fees. It would accommodate a substantial part of foregone earnings and also finance much bigger personal libraries than the conventional ones. More important, such loans might well allow diversions of public money to younger students from poorer families to enable them to stay on at high school to obtain the qualifications for entry to post-secondary stages. If there is serious inequality of opportunity in the system the major cause is surely located in the organization of lower schooling. Indeed many observers argue that the most critical educational deficiencies are to be found in the pre-school environment.

The second alleged drawback which the Commission mentions is the now familiar one that a loan system forces young women to bring into their marriages "negative dowries". This is wrong. The woman student who successfully undergoes university education with the help of loans brings not a negative but a positive dowry to the marriage. The post-secondary education normally enhances a person's value on the market and this applies to women no less than men. Most female married graduates have the prospect of obtaining relatively high paid employment over their lifetime. The child-bearing years amount to only a proportion of the marriage years. Even when they are bringing up children many female graduates secure well-paid employment. Equity considerations in any case demand not only a comparison of the prospects of female students with those of male students but also with male and female non-student taxpayers. The "negative dowry" argument in fact is a variant of the general argument that loans will be an "intolerable" burden on some students. It should be remembered that one of the main purposes of the loans scheme is to select predominantly those students who believe that investment in their education will pay for itself and to discourage others. Those who think otherwise and expect that it will be an "intolerable" burden should not be specially encouraged in the first place. Such questions about female discrimination are also matters of evidence. The Commission may like to know that the very latest empirical research on international experience with loans does not support its suppositions.[1]

The Commission also argues that a loan scheme will involve specially designated taxation. Strictly however it is speaking not of a loan scheme but a graduate tax scheme. The specific differences will be examined later but broadly a loan scheme proper relies largely on the private capital market, the function of government being confined to that of guarantor of individual loans. With growing taxpayer resistance the private capital market provides an alternative and largely non-political source of funds. In the absence of any recourse to this market the onus is on the Commission to explain how it will ration the decreasing fiscal revenues per head through the traditional grants system.

We respectfully suggest that in its paragraph on page 15, which is headed Evaluation, the Commission is stating an utopian yearning when it argues that the purpose of any financial scheme must be to see that 'financial barriers' must be lowered and, preferably eliminated. In fact financial barriers, if by that term we mean costs, can never be eliminated. Education absorbs real resources which are

---

1. Maureen Woodhall (London University Institute of Education), Student Loans: A Review of Experience in Scandinavia and Elsewhere (1970). She concludes that student loan schemes worked well in all countries, that there were no serious administrative difficulties, and no evidence that they militated against working class students or discriminated against women students.

scarce. Financial costs measure the degree of this scarcity so that society has to choose between more education and less of other things. Even if there is no "financial barrier" to the individual student, there must be one to the taxpayer who provides the subsidy. Under present circumstances an open-ended system of completely free provision to all comers to higher education who are qualified is more of an aspiration than a practical policy. As these new entrants arrive in unexpected numbers such a system will inevitably break down when taxpayer resistance asserts itself even more conspicuously. When it does, the important question will have to be faced whether the government authorities should superimpose a higher rationing system by determining higher and higher qualifications necessary for new entrants. If it does so, the question arises how far government might begin to arrogate important functions which have hitherto been enjoyed by independent education institutions and their students. One writer at least fears that ". . . the government is already acting as the brakeman by unilaterally deciding on the grant eligibility of students. Perhaps tomorrow it will be setting down enrolment policies according to its views of society's needs for graduates in different disciplines and professions . . .".[1] The same writer seems to see as a thin end of the wedge the recent government ruling requiring that all new programs, including the establishment of new departments or new degree programs, be approved by the Committee on University Affairs before the university can receive grants on behalf of enrolled students.

The Choice Between Different Loan Systems

There is obviously a case for the strengthening of existing loan schemes and the development of new ones. Increasing dependence on them could take place gradually. They should be used to take the main burden of future cost increases. There are broadly two types of loan schemes and there is a place for each. First is the Contingent Repayment Student Assistance Program. The best-known version is the Educational Opportunity Bank recommended in 1967 to the U.S. Federal Government by the Panel on Educational Innovation. In exchange for a loan, the borrower pledges a given percentage of his annual gross income for a fixed number of years after graduation, e.g. a payment of 1 per cent of income for thirty years. There is considerable government involvement in this type of loan especially since it necessitates precise definitions of, and checks upon, income. There is also a considerable potential subsidy element since ceilings are imposed on interest payments. The bank moreover is allowed to borrow at government rates.

Various kinds of contingency schemes are now being applied independently by American colleges and universities. Students at Yale

---

1. Charles Hanly, op. cit., p. 138.

will be allowed next fall to borrow $800 towards their educational expenses. In subsequent years the amounts borrowable will increase by $300 per year which is the sum by which the university expects tuition costs to rise annually. Loans will be paid off at 0.4 per cent of income for every $1000 borrowed. Similarly Duke University is to offer a deferred tuition plan in which basic repayment periods extend up to 30 years. Members of the freshman and sophomore classes will not be eligible because the college dropout rate reaches its peak at the end of the second year. The Ford Foundation announced last February that it would fund a $500,000 study of the feasibility of establishing nation-wide such pay-as-you-earn loan plans. The most far-reaching comprehensive scheme is contained in legislation now being introduced in Ohio with regard to its state system. Every student entering a state university will be required to sign an agreement to repay the subsidy for his education which is $3,200 for four years. Interest free annual payments will begin when the former student is earning at least $7000 a year.

The second kind of loan scheme incurs much less government involvement. It relies simply on commercial banks, the government confining itself to the role of guarantor. This guarantor provision does imply some subsidy element as does the fact that the interest rates are often subsidised. However loans are usually arranged closer to market rates whilst funds are borrowed on the commercial market. While the Contingent scheme is superior to a grants system it is in some ways inferior to this second kind. The straight commercial loan system does not require special public machinery for collecting the taxes. It requires less public funds. It avoids the danger of perpetual political controversy which is associated with the Contingency scheme which depends on the periodic setting of some "reasonable", but probably arbitrary, tax proportion or formula. Several varieties of commercial type loan systems exist in Scandinavia. In Denmark loans from private banks (with government guarantees) are used by those students who do not qualify for a grant and an interest free loan. All Danish university students entitled to financial aid are required to repay half the total amount of aid they receive. These students are allowed to borrow additional sums from private banks with government guarantee. Between 50 and 60 per cent of all Danish students are receiving loans. In Finland since 1970 all students have been entitled to state guarantees for study loans from commercial banks. The guarantees are available without reference to parents' income. In Sweden part of the aid is in grant form and the remainder in the form of a loan which must be repaid in terms of money of constant purchasing power. As the cost of living rises the proportion of aid given in the form of a grant declines. The grant element is at present 22 per cent of total aid. The remaining 78 per cent must be repaid in equal instalments up to the 50th birthday. No repayment is expected for three years after graduation. A feature of the Norwegian system since 1969 is that all students who are studying abroad are given

larger than average loans to compensate for higher expenses.[1] All Nordic countries incidentally provide direct aid to a minority of secondary school pupils above the compulsory age.

None of the Scandinavian countries uses the tax authorities for collection of loan repayments. Cases of non-payment are dealt with in the civil courts but there are few such cases. In Norway in 1968 legal means of securing repayment was resorted to in under 1 per cent of the total number of outstanding loans. (Compare this with the 2 per cent default rate in the Canada Student Loans Plan.) Little difficulty is experienced in securing repayment by emigrants.

Our closest equivalent to the Scandinavia loan system is the Canada Student Loan Plan. It is however inferior in several ways. The maximum loan in Canada is $1000 per annum but Ontario has recently reduced this for dependent students to $600. This is obviously inadequate. (In Sweden the maximum is $1320.) An Ontario student who is under 25 and unmarried is classed as 'dependent' and the financial contribution of his parents is expected to increase progressively according to income. For a family with three children, for instance, if its income is $5,500 it is expected to pay $275 (5%). If the family income is $11,500 it is expected to pay $1,380 (12%). Many students have no desire to impose such high burdens on their parents.[2] Others in their twenties who have been living away from home for several years or who have indifferent parents will receive no benefits at all from their parents and will probably be discouraged from attendance at college. There is in other words an undesirable lottery element in the selection of students under the present system. This situation should be compared with that in Sweden where eligibility on financial grounds is determined only by reference to the income and capital of the student and does not take into account the means of his parents. In Norway strong objections of the student union to parental means tests has led Parliament to promise to abolish it. Among the recently expressed aims of the Finnish National Union of Students is the following: "The parents' income and property should not be taken into account . . . since it places students who are of age in a factitious position of dependence on their parents."

Also included in the Canada Student Loan Plan is the condition that students are expected to save $700 from a summer job. This seems very arbitrary. More important it seems to endorse the tradition of financing education by part time work. If this tradition were dropped and more extensive loans provided then there may be a reduction of drop-out rates and a shortening of degree courses. A student doing part-time study and part-time work and graduating in 8 years can

---

1. All the details of Scandinavian experience are from M. Woodhall, 1970, op. cit.

2. One of the main purposes of the Yale plan being adopted this year is to help those middle class students whose families lack the funds to pay for college comfortably but are too well off to qualify for student aid.

certainly spread his investment costs over a longer time period. His opportunity costs are probably lower than a full-time student graduating in 5 years. The benefit income stream of the latter however commences 3 years earlier and this may be more than enough to enable him to repay extra loans. In other words the longer gestation period in education may be inefficient because "it involves a highly qualified worker, in intellectual terms, undertaking an unskilled occupation."[1]

The two major principles of intervention, as we have seen, are: (1) the need to correct capital market imperfections (by encouraging loan schemes) and (2) the need for governments to appropriate external (non-private) benefits. Nothing we have said in favour of more reliance on loans implies that principle (2) should become entirely superfluous. What is being sought for in the light of taxpayer resistance is a new balance between loans, which respect principle (1) and grants, which respect principle (2). It should be observed that the latter principle is based on the assumption that since average individuals in pursuing their private benefits may, at the margin of private expenditure on education, be providing significant spillover benefits to society. The need is to encourage them to spend further marginal amounts. Non-average individuals - especially the very rich - may be motivated to purchase so much education privately that although at the margin they are still providing some external benefits these are not so significant as to warrant further subsidies.[2] It is arguable that it is those who are at the earlier or threshold stage of higher education attainments that require the biggest encouragement to participate at a minimum level and to render the appropriate external (social) benefits. It follows that if taxpayers' revenue is to play a relatively smaller part in educational financing in the future the most efficient way of making economies is to start at the higher 'richer' end of the student spectrum such as the 7th, 6th and 5th year cohorts.

It is essential however that as one door closes for these groups another one should open; that is, as the grant element is reduced the loans should be increasingly facilitated.[3] Taxpayers will be more immediately relieved in this process the nearer the loan interest rates are to the market rates and the more the commercial capital market is enlisted.[4] It so happens that among these most senior

---

1. Stephen Merrett, "Student Finance in Higher Education", Economic Journal, June 1967, p. 292.

2. In economic terminology these are known as Pareto irrelevant external economies.

3. The sharp increase in fees for graduate students announced last month should have been accompanied by an increase in loan facilities. Without the latter the policy is too negative and will cause both hardship and inefficiency.

4. There may however be some counteracting fiscal implications especially if there is much upward pressure on interest rates. See Karl Shell and others, "The Educational Opportunity Bank", National Tax Journal, March 1968. Very special assumptions are required to show that taxpayers will not enjoy net relief from the grant-to-loan switch.

students the argument against loans is weakest. The claim that loans militate against working class participation because such groups have neither the knowledge nor the willingness to saddle themselves with debt applies least of all to students who already have 4 years of higher education behind them. This group also faces the smallest risk in such loan investments. Indeed, considering the future lifetime stream of income it can look forward to it can no longer be considered working class.

The estimate of the reduction in grants achievable if professional trainees alone (medicine, dentistry, law and architecture) were to pay themselves in full for all years studies above 4 would be about $16 million. The figures are as follows: 1969/70 - Based on numbers of students, basic income units and weights, formula fees.

$ 15,572,000 out of total grants of
$236,420,000 - or 6.6%.

This would represent taxpayer savings. Substantial savings would occur therefore if there were a switch at this level from grants to loans. If those taking medical degrees were charged the full cost of their last two years' training they would have to pay $15,300. Their total financing would be as follows:

	BIU's	Grants	Fees	Loans	Total Cost
1st 4 years	12	16,010	2,350	--	18,360
last 2 years	10	--	--	15,300	15,300
					33,660

This is an extreme case no doubt and in absolute terms the full cost fees for the last two years look astonishingly high. Yet if the repayment were spread over 25 years the position looks much less alarming. We are after all speaking of a person, such as a G.P., who can now expect over a lifetime to receive income of nearly $1 million (Statement of Issues, Table V, updated to 1971). The fee of $15,300 amounts in other words to about $1\frac{1}{2}$ per cent of lifetime income.

So far the argument for increases in loans for senior students has rested entirely on grounds of efficiency. We expect that this policy will commend itself to the Commission also on grounds of equity. If average students only receive, say, four years subsidised higher education, it may seem only fair that those who receive more should pay more. Those who fail and repeat their first year will also automatically be liable for further payment if differential treatment is accorded to years of education in excess of four. Moreover we suspect that the Commission's misgivings about the monopolistic use of 'certification' concerns several of the professions. As we argued earlier this gives another presumption in favour of reducing the government subsidy element in the latter years of training for such groups.

It will be clear by now that we regard the Commission to have made its strongest argument on page 15 of its "Statement" where it suggests a policy ". . . to limit the free, public supported educational services to a pre-determined number of years - that is, in effect, prolong the opportunity for universal public education by, say, two or three years and then charge the full cost to the users for additional years." We have suggested substantial savings even by extending higher education to 4 years.[1] We trust that our full examination of this proposition has revealed all the arguments in favour and that in particular it combines in a unique way issues of efficiency with those of equity.

The following is a summary of our recommendations:

Recommendations

1) Assuming 'taxpayer resistance' to continue, economies should be made first among the senior grades of post-secondary education - especially after the fourth year.

2) These grades should be invited to pay an increasing share of costs (not necessarily full costs in the first instance) of the years in excess of four.

3) As these private costs increase so should opportunities for student borrowing.

4) The selection between the contingency loan plan and conventional commercial loans (with government guarantees) is to some extent a matter of taste. Since the contingency share (such as the Educational Opportunity Bank) usually contains more government subsidy and general involvement it is probably more applicable for the lower income or less 'privileged' groups. We would recommend at least more feasibility studies on this issue.

5) The Ontario authorities should present strong arguments to the Federal Government to reform the Canada Student Loan Plan. In particular there should be more flexible provision, bigger variety of options, and a removal of the parental means test.

6) If the suggestions for reform are not acceptable to the Federal Government, the authorities should urgently consider the setting up of a complementary Ontario loan system on the lines indicated.

---

1. It was interesting to learn after we had made our own deliberations on the Canadian problem that the Dutch Government is this year to introduce legislation that will curtail the number of years of subsidised university education to four. Students may continue after that period but at their own cost. See The Times (of London), 10 March, 1971.